

Pathogen Detection Resources

From next generation sequencing reads to clusters of related bacterial pathogens based on SNPs.

ncbi.nlm.nih.gov/pathogens/

NCBI Pathogen Detection integrates bacterial pathogen genomic sequences originating in food, environmental sources, and patients. It quickly clusters and identifies related sequences to uncover potential food contamination sources, helping public health scientists investigate foodborne disease outbreaks.

Isolate Browser

- Determine if an isolate is part of a cluster of isolates
- Examine the phylogenetic relationship of clustered strains
- Download the metadata for isolates of interest
- Determine if a clinical isolate is closely related to a food-borne isolate (and vice versa)

Antimicrobial Resistance Resources

Bacterial Antimicrobial Resistance Reference Gene Database

Curated dataset of antimicrobial resistance genes and point mutations with standardized gene descriptions

- **Download** 4,942 sequences
ncbi.nlm.nih.gov/bioproject/PRJNA313047
- **List** of accessions, gene names, and resistance phenotypes
<https://www.ncbi.nlm.nih.gov/pathogens/isolates#/refgene/>
- Data for the **Hidden Markov Models** (HMMs) used to identify resistance genes
ftp.ncbi.nlm.nih.gov/pathogen/Antimicrobial_resistance/AMRFinder/data/

AMRFinder

Publicly-available resistance gene detection tool

- **Identify** resistance genes in your genomic data
- **Download** genomic metadata for genomes with your antimicrobial resistance genes of interest
- AMRFinder is available at bit.ly/ncbi-amrfinder 

Phenotypic data

- **Search** over 11,600 genomic datasets that also have antimicrobial susceptibility testing data using “antibiogram[filter]” in the Isolate Browser.

Over **378,000** isolates from **28** taxa are integrated into the **Pathogen Detection System**

Learn More



Isolate Browser

 bit.ly/pathogen-browser-intro

 bit.ly/ncbi-pathogen-factsheet

Pathogen Detection System

ncbi.nlm.nih.gov/pathogens/about/

AMR Finder

 bit.ly/ncbi-amrfinder

Download



Data can be downloaded via ftp
<ftp.ncbi.nlm.nih.gov/pathogen/Results/>

or visualized in NCBI's Isolate Browser
ncbi.nlm.nih.gov/pathogens/isolates/

Submit Data

Details and instructions at
ncbi.nlm.nih.gov/pathogens/submit-data/